

- (2) General Arrangement Plans.
- (3) Safety Plan (Fire-Control Plan).
- (4) Lifesaving-Equipment Plan.
- (b) *Hull structure*.
- (1) Midship Section.
- (2) Booklet of Scantling Plans.
- (3) Arrangement of Ports, Doors, and Air ports.
- (4) Hatch Coamings and Covers in Weather Decks and Watertight Decks.
- (5) Scuppers and Drains Penetrating Shell-Plating.
- (6) Booklet of Standard Details.
- (c) *Subdivision and stability*. (For plans required for subdivision and stability, see subchapter S of this chapter.)
- (d) *Marine engineering*.
- (1) Piping diagrams of each Class I systems.
- (2) Piping diagrams of the following Class II systems (the builder's certification of Class II non-vital piping systems must accompany the piping diagrams in compliance with § 128.220(c) of this subchapter):
 - (i) Systems for fill, transfer, and service of fuel oil.
 - (ii) Fire-main and fixed gaseous fire-extinguishing systems.
 - (iii) Bilge systems.
 - (iv) Ballast systems.
 - (v) Fluid-driven power and control systems.
 - (vi) Through-hull penetrations and shell connections.
 - (vii) Sanitary systems.
 - (viii) Vents, sounding tubes, and overflows.
 - (ix) Compressed-air systems.
- (3) Steering and steering-control systems.
- (4) Propulsion and propulsion-control systems.
- (5) Piping diagrams of each system containing any flammable, combustible, or hazardous liquid including—
 - (i) Cargo-oil systems;
 - (ii) Systems for combustible drilling-fluid (such as oil-based liquid mud); and
 - (iii) Cargo-transfer systems for fixed independent or portable tanks.
- (e) *Electrical engineering*.
- (1) For each OSV of less than 100 gross tons, the following plans must be submitted:
 - (i) Arrangement of electrical equipment (plan and profile) with equipment

identified as necessary to show compliance with this subchapter.

(ii) Electrical one-line diagram that includes wire types and sizes, overcurrent-device rating and setting, and type of electrical-equipment enclosure (drip-proof, watertight, or the like).

(iii) Switchboard plans required by paragraphs (e) and (f) of § 110.25-1 of this chapter.

(2) For each vessel of 100 or more gross tons, the plans required by § 110.25 of this chapter must be submitted.

(f) *Automation*. For each OSV of 100 or more gross tons, where automated systems are provided to replace specific personnel in the control and observation of the propulsion systems and machinery spaces, or to reduce the level of crew associated with the engine department, the following plans must be submitted:

(1) Plans necessary to demonstrate compliance with subpart D of part 130 of this subchapter.

(2) Automation-test procedure.

(3) Operations manual.

§ 127.120 Procedure for submittal of plans.

If an OSV is to be constructed, altered, or repaired in the United States, the plans, information, and calculations required by this part must be submitted to—

(a) The OCMI in the zone where the vessel is to be constructed, altered, or repaired; or

(b) The Commanding Officer, Marine Safety Center, 400 Seventh Street SW., Washington, DC 20590-0001.

Subpart B—Particular Construction and Arrangements

§ 127.210 Structural standards.

(a) Except as provided by paragraphs (b) and (c) of this section, compliance with the construction and structural rules established by the ABS and incorporated by reference in § 125.180 is acceptable for the design and construction of an OSV.

(b) The standard of any classification society, or any other established standard, acceptable to the Commandant (G-MSE) may be used.

(c) If no established standard for design is used, detailed design calculations must be submitted with the plans required by § 127.110 of this part.

(d) The plans required by § 127.110 of this part should specify their standard for design.

[CGD 82-004, CGD 86-074, 60 FR 57646, Nov. 16, 1995, as amended by CGD 96-041, 61 FR 50731, Sept. 27, 1996]

§ 127.220 General fire protection.

(a) Each OSV must be designed and constructed to minimize fire hazards, as far as reasonable and practicable.

(b) Exhausts of internal-combustion engines, galley uptakes, and similar sources of ignition must be kept clear of and insulated from woodwork and other combustible matter.

(c) Paint lockers and similar compartments must be constructed of steel or be wholly lined with steel.

(d) Except as provided by paragraph (e) of this section, when a compartment containing the emergency source of electric power, or vital components of that source, adjoins a space containing either the ship's service generators or machinery necessary for the operation of the ship's service generators, each common bulkhead and deck must be "A-60" Class construction as defined by § 72.05-10 of this chapter.

(e) The "A-60" Class construction required by paragraph (d) of this section is unnecessary if the emergency source of electric power is in a small, ventilated battery locker that—

- (1) Is located above the main deck;
- (2) Is located in the open; and
- (3) Has no boundaries contiguous with other decks or bulkheads.

§ 127.230 Subdivision and stability.

Each OSV must meet the applicable requirements in subchapter S of this chapter.

§ 127.240 Means of escape.

(a) There must be at least two means of escape, exclusive of windows and portholes, from each of the following spaces:

- (1) Each space accessible to offshore workers.
- (2) Crew accommodations and each space where the crew may normally be employed.

(b) At least one of the two means of escape must—

(1) Be independent of watertight doors in bulkheads required by part 174 of this chapter to be watertight; and

(2) Lead as directly to the open deck as practicable.

(c) The two means of escape required by paragraph (a) of this section must be widely separated and, if possible, at opposite ends or sides of the space, to minimize the possibility that one incident will block both escapes.

(d) Except as provided by paragraph (e) of this section, a vertical ladder ending at a deck scuttle may not be either of the means of escape required by paragraph (a) of this section.

(e) A vertical ladder ending at a deck scuttle may be the second means of escape if the—

- (1) Primary means of escape is a stairway or passageway;
- (2) Installation of another stairway or passageway is impracticable;
- (3) Scuttle is located where stowed deck cargo could not interfere;
- (4) Scuttle is fitted with a quick-acting release, and with a hold-back to hold the scuttle open; and
- (5) Scuttle meets the requirements for location, strength, and height of coaming in subchapter E of this chapter.

(f) Each vertical ladder must—

- (1) Have rungs that are—
 - (i) At least 16 inches (410 millimeters) long;
 - (ii) At most 12 inches (300 millimeters) apart, uniform for the length of the ladder; and
 - (iii) At least 7 inches (180 millimeters) from the nearest permanent object in back of the ladder;
- (2) Have at least 4½ inches (115 millimeters) of clearance above each rung;

(3) Be made of incombustible materials; and

(4) Have an angle of inclination with the horizontal, greater than 70 degrees but not more than 90 degrees.

(g) No means may be provided for locking any interior door giving access to either of the two required means of escape; except that a crash door or locking-device, capable of being easily forced in an emergency, may be employed if a permanent and conspicuous notice to this effect is attached to both